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| EXAMINER | |
|---|---|
| ORR, HENRY W | |

| ART UNIT | PAPER NUMBER |
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| 2176 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/750,261 | CHOU, STEVE S.K. | |
| | Examiner | Art Unit | |
| | Henry Orr | 2176 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *17 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-4,7-9,11-15 and 17-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-9,11-15 and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. This action is responsive to applicant's amendment dated 3/17/2008.

2. Claims 1-4, 7-9, 11-15 and 17-20 are pending in the case.

3. Claims 5, 6, 10 and 16 are cancelled.

4. Claims 1, 8 and 15 are independent claims.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**6. Claims 1, 3, 4, 7, 8, 11, 15, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by User Guide PocketCAD PRO Version 4.0 (hereinafter "PocketCAD"), May 2001 of record.**

Claim 1:

PocketCAD teaches **a system for entry and display of blueprint data comprising a handheld device, said handheld device further comprising:** (see Introduction p. 9-10)

**a graphical user interface for providing line segment data entry fields,** (see Drawing Lines p. 48-54) **arc data fields comprising a start point field** (e.g. center point field)**, an end point field** (e.g. end point field)**, and a radius field** (e.g. start point

field) (see Arc with Center tool p. 55, Arcs p.87) **and for displaying input line segments and arc data** (see Polyline tool p. 51-53);

PocketCAD teaches a mobile device capable of having a processor and memory adapted for accepting, storing, and editing line segment and arc data associated with said input line segments (see System Specifications p. 10, User Interface Features p. 10-11, Using CadExchange p. 15-17). **(claim 1; i.e., a processor and memory adapted for accepting, storing, and editing line segment and arc data associated with said input line segments)**

Pocket CAD teaches a Object Properties Dialog window for polylines capable of automatically updating the segmentation of a previously placed arc created by a polyline into at least two distinct arc segment (see Polylines p. 90). **(claim 1; i.e., said editing of said arc data further comprising an arc segmenter for automatically segmenting a previously placed arc into at least two distinct arc segments.)**

Claim 3:

PocketPAD teaches **wherein said line segment data entry fields comprise a start point field, a direction field, and a length field** (e.g. distance field) (see Drawing Lines p. 48-51).

Claim 4:

PocketPAD teaches **said display is a touch-screen** (see Place, Move, and Lift p. 19).

Claim 7:

PocketPAD teaches **further comprising a keypad** (see Setting the Keyboard or Pen p. 22).

Claim 8:

Claim 8 is a method claim and is substantially encompassed in system claims 1 and 3; therefore the method claim is rejected under the same rationale as system claims 1 and 3 above.

Claim 11:

PocketPAD teaches **entering a start point for a second line segment, wherein said start point of said second line segment is an end point of said first line segment; and entering and displaying said second line segment on said display** (see Polyline tool p. 51-53).

Claims 15 and 17:

Claims 15 and 17 include a program embodied on a computer readable medium to implement the steps that are substantially encompassed in method claims 8 and 11 respectively; therefore the claims are rejected under the same rationale as method claims 3 and 11 above.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. **Claims 2, 12-14 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over PocketPAD as cited above, in view of Thomas et al. (hereinafter "Thomas"), U.S. Patent No. 7,103,774 B2.**

Claim 2:

PocketPAD fails to expressly teach storing as a hierarchical sequence and translating line segments that succeed the selected line segment of said hierarchical sequence without translating line segments that precede the selected line segment in said hierarchical sequence.

However, Thomas teaches *"Fig. 9 illustrates the hierarchical nature in which job-site elements that are mapped by the operator are subsequently stored in a working database"* (see col. 16 lines 2-5). **(claim 2; i.e., wherein said input line segments are stored as a hierarchical sequence)** Examiner interprets the job-site elements to include the line object element, which is equivalent to the line segment. The hierarchical nature of the elements, which are stored in a working database is interpreted as being "stored as a hierarchical sequence" as recited in claim 2.

Thomas further teaches *"Referring to the area illustrated in FIG. 5, this first segment pair may include for example wall 1 (step 186) and wall 2 (step 194). In order to calculate the error on this segment pair, the system effectively isolates the pair (step 918), and determines the error on the segment"* (see col. 26 lines 55-65). **(claim 2; i.e., wherein editing, insertion, or deletion of a selected line segment translates line segments that succeed the selected line segment of said hierarchical sequence without translating line segments that precede the selected line segment in said hierarchical sequence.)** Examiner interprets wall 1 and wall 2 as line segments that are edited or translated in isolation without translating line segments that precede the selected wall 1 and wall 2 line segments.

It would have been obvious to one of ordinary skill in the art at the time the invention to modify the storing process and editing functions as taught by PocketPAD to include a storing process of hierarchical nature and error minimizing functions as taught by Thomas to provide the benefit to create accurate measured drawings that reflect the structure and content layout of the job-site. (see Thomas; abstract).

Claim 12:

PocketPAD teaches **entering a start point for a third line segment, wherein said start point of said third line segment is an end point of said first line segment** (see Polyline tool p. 51-53).

PocketPAD fails to expressly teach translating said second line segments so that the start point of said second line segment coincides with an end point of said third line segment.

However, Thomas teaches *"A primary goal is to close the segment pair (step 926, i.e. to ensure that the individual elements in the segment pair correctly abut one another"* (see col. 26 lines 64-67). **(claim 12; i.e., translating said second line segment so that the start point of said second line segment coincides with an end point of said third line segment.)** Examiner interprets the individual element as a line object that can be translated to abut ("coincides") the other line object within the pair. Examiner also interprets the line segments can be designated as first, second, or third because the line segment hierarchical rank is based on the sequence of order in which the line segments were inserted to create the entire drawing.

It would have been obvious to one of ordinary skill in the art at the time the invention to modify the creation of a polyline as taught by PocketPAD to include the translation feature as taught by Thomas to provide the benefit of individual elements in a segment pair to correctly abut one another (see Thomas; col. 26 lines 64-67).

Claim 13:

PocketPAD teaches **entering a start point for a third line segment, wherein said start point of said third line segment is an end point of said second line segment; entering and displaying said third line segment on said display** (see Polyline tool p. 51-53).

Claim 14:

Claim 14 is a method claim and is substantially encompassed in system claim 2; therefore the method claim is rejected under the same rationale as system claim 2 above.

Claims 18-20:

Claims 18, 19 and 20 include a program embodied on a computer readable medium to implement the steps that are substantially encompassed in method claims 12, 13 and 14 respectively; therefore the claims are rejected under the same rationale as method claims 12, 13 and 14 above.

**9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over by PocketPAD as cited above, in view of Minakata, U.S. Patent No. 5,568,565 B1.**

Claim 9:

PocketPAD fails to expressly teach a repeat factor.

However, Minakata teaches *"Repetition factor Rf is a parameter which shows whether the user intends to repeatedly write line segments"* (see col. 5 lines 26-27). **(claim 9; i.e., further comprising entering a repeat factor for said line segment.)** Examiner interprets the repetition factor as equivalent to the repeat factor because the

both the repetition factor and repeat factor indicate how many times the line segments should be repeated.

It would have been obvious to one of ordinary skill in the art at the time the invention to modify PocketPAD polyline interface to include a repetition factor as taught by Minakata to provide benefit of allowing the user to indicate how many times to repeatedly write segments for a defined line object (see Minakata; col. 26-31).

***Response to Arguments***

10. Applicant's arguments filed 3/17/2008 have been fully considered but they are not persuasive.

**Rejections under 102(b)**

**Claims 1-5, 7,8, 11-15 and 17-20:**

Applicant argues that PocketCAD fails to teach or suggest "an arc segmenter for automatically segmenting a **previously** placed arc into at least two distinct arc segments" or "a segment editor to automatically parse said arc into a plurality of arc subdivisions" (emphasis added). (see Response p. 6-7)

Examiner respectfully disagrees.

PocketPad's Figure 71 illustrates previously entered vertex points for the segments that create an arc. The user is allowed to enter new vertex points to redefine the segments of the created arc. Once the new vertex points are entered by the user in the corresponding vertex fields of the previously created arc; the arc may be automatically updated with new distinct arc segments or arc subdivisions that defined by the new vertex points. Therefore, PocketPad's Figure 71 illustrates an arc segmenter editor that automatically updates a previously created arc with newly redefined distinct arc segments; once the previously entered vertex points are replaced by the new vertex points entered by the user.

For at least the foregoing reasons, PocketPad does suggest or teach "an arc segmenter for automatically segmenting a previously placed arc into at least two distinct arc segments" or "a segment editor to automatically parse said arc into a plurality of arc subdivisions" as recited by independent claims 1, 8 and 15.

**Rejections under 103(a)**

**Claims 2, 12-14 and 18-20:**

Applicant arguments with respect to claims 2, 12-14 and 18-20 are substantially encompassed in the arguments under 35 U.S.C 102(b) above, therefore examiner responds with the same rationale as stated above.

In addition, Thomas is not relied upon to teach an arc editor to subdivide an arc because PocketPad is teaches such a feature. Therefore, there is no need to combine PocketPad and Thomas to teach such a feature.

**Claim 9:**

Applicant arguments with respect to claim 9 is substantially encompassed in the arguments under 35 U.S.C 102(b) above, therefore examiner responds with the same rationale as stated above.

In light of the above remarks, Examiner maintains all Prior Art Rejections to pending claims 1-4, 7-9, 11-15 and 17-20.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Orr whose telephone number is (571) 270 1308. The examiner can normally be reached on Monday thru Friday 8 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on (571) 272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HO
6/6/2008

/Rachna S Desai/

Primary Examiner, Art Unit 2176